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This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Currently amended) Apparatus for equalizing the amplitudes of the bandedges of a broadband signal comprising:

a pre-equalizer for adjusting the amplitudes of the bandedges of said broadband signal in response to a control signal such that the amplitudes of the bandedges are made equal;

a bandedge filter, connected to said pre-equalizer, for extracting a bandedge signal from said broadband signal; and

a bandedge signal processor, connected to said bandedge filter, for generating said control signal in response to said bandedge signal.

2. (Currently amended) ~~The apparatus of claim 1~~Apparatus for equalizing the amplitudes of the bandedges of a broadband signal comprising:

a pre-equalizer for adjusting the amplitudes of the bandedges of said broadband signal in response to a control signal;

a bandedge filter, connected to said pre-equalizer, for extracting a bandedge signal from said broadband signal; and

a bandedge signal processor, connected to said bandedge filter, for generating said control signal in response to said bandedge signal, wherein said bandedge signal processor comprises:

a first filter for producing a first bandedge signal from said bandedge signal;

a second filter for producing a second bandedge signal from said bandedge signal;

a first magnitude processor, connected to said first filter, for generating a first magnitude value representing the magnitude of said first bandedge signal; and

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a second magnitude processor, connected to said second filter, for generating a second magnitude value representing the magnitude of said second bandedge signal.

3. (Original) The apparatus of claim 2 wherein said bandedge signal processor further comprises:

a subtractor, connected to said first and second magnitude processors, for producing a difference value representing the difference between said first and second magnitude values; and

a loop filter, connected to said subtractor, for generating said control signal from said difference value.

4. (Original) The apparatus of claim 2 wherein said first filter is a first Hilbert filter.

5. (Original) The apparatus of claim 2 wherein said second filter is a second Hilbert filter.

6. (Original) The apparatus of claim 5 wherein said first Hilbert filter has a form

$$\begin{bmatrix} 0 & 1 & 0 \\ -0.5 & 0 & 0.5 \end{bmatrix}.$$

7. (Original) The apparatus of claim 5 wherein said second Hilbert filter has a form

$$\begin{bmatrix} 0 & 1 & 0 \\ 0.5 & 0 & -0.5 \end{bmatrix}.$$

8. (Original) The apparatus of claim 1 wherein the pre-equalizer has the form

$$\begin{bmatrix} 0 & 1 & 0 \\ \alpha & 0 & -\alpha \end{bmatrix}, \text{ where } \alpha \text{ is a magnitude of the control signal.}$$

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9. (Original) The apparatus of claim 1 wherein the pre-equalizer attenuates a particular bandedge of said broadband signal in response to said control signal.

10. (Original) The apparatus of claim 1 wherein the pre-equalizer amplifies a particular bandedge of said broadband signal in response to said control signal.

11. (Original) Apparatus for equalizing the amplitudes of the bandedges of a broadband signal comprising:

a pre-equalizer for adjusting the amplitudes of the bandedges of said broadband signal in response to a control signal;

a bandedge filter, connected to said pre-equalizer, for extracting a bandedge signal from said broadband signal;

a first Hilbert filter connected to said bandedge filter for producing a first bandedge signal from said bandedge signal;

a second Hilbert filter connected to said bandedge filter for producing a second bandedge signal from said bandedge signal;

a first magnitude processor, connected to said first Hilbert filter, for generating a first magnitude value representing the magnitude of said first bandedge signal; and

a second magnitude processor, connected to said second Hilbert filter, for generating a second magnitude value representing the magnitude of said second bandedge signal

a subtractor, connected to said first and second magnitude processors, for producing a difference value representing the difference between said first and second magnitude values; and

a loop filter, connected to said subtractor, for generating said control signal from said difference value.

12. (Currently amended) A method of equalizing the amplitudes of the bandedges of a broadband signal comprising the steps of:

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adjusting the amplitudes of the bandedges of said broadband signal in response to a control signal such that the amplitudes of the bandedges are made equal; extracting a bandedge signal from said broadband signal; and generating said control signal in response to said bandedge signal.

13. (Currently amended) ~~The method of claim 12 A method of equalizing the amplitudes of the bandedges of a broadband signal comprising the steps of:~~
~~adjusting the amplitudes of the bandedges of said broadband signal in response to a control signal;~~

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~~extracting a bandedge signal from said broadband signal; and~~
~~generating said control signal in response to said bandedge signal, wherein said generating step further comprises the steps of:~~

producing a first bandedge signal from said bandedge signal;
producing a second bandedge signal from said bandedge signal;
generating a first magnitude value representing a magnitude of said first bandedge signal; and
generating a second magnitude value representing a magnitude of said second bandedge signal.

14. (Original) The method of claim 13 wherein said control signal generating step further comprises the steps of:

producing a difference value representing the difference between said first and second magnitude values; and
generating said control signal from said difference value.

15. (Original) The method of claim 12 wherein said adjusting step comprises the step of attenuating a particular bandedge of said broadband signal in response to said control signal.

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16. (Original) The method of claim 12 wherein said adjusting step comprises the step of amplifying a particular bandedge of said broadband signal in response to said control signal.